

## REMARKS

Claims 1-6 and 22-34 are pending. No claims are amended.

### The Finality of the Office Action is Improper

As the Examiner is aware, a final Office Action must address each rejection and argument that was raised in the earlier Office Action and Response. See MPEP 707.07. The previous (nonfinal) Office Action included a rejection of claims 22 and 32 as being unpatentable over Hepp et al. (US Patent No. 3,461,183) in view of Saito et al. (US Patent No. 5,935,529) in view of Tonkovich et al. (US/0072699). See page 4 of the Office Action mailed April 5, 2005.

The final Office Action does not mention this rejection. Furthermore, the final Office Action does not mention applicants' response to this rejection. See pages 8-9 of applicants' Amendment submitted August 5, 2005.

The undersigned attorney attempted to resolve this issue by telephoning the Examiner and the Supervising Primary Examiner; however, this did not result in clarification of the status of the Tonkovich rejection.

Because the most recent Office Action did not address the rejection based on Tonkovich, the finality is improper.

### Claims 22 and 32 are Patentable Over the cited References

In the Office Action mailed April 5, 2005, claims 22 and 32 were not rejected over Hepp et al. in view of Saito et al. These claims were only rejected over Hepp in view of Saito in view

of Tonkovich et al. (US 2003/0072699). However, as discussed in the previous Amendment, the Tonkovich reference does not qualify as prior art in a section 103 rejection. Specifically, it is pointed out that the subject matter of the claimed invention and Tonkovich et al. (US 2003/0072699) were, at the time the claimed invention was made, owned by, or subject to an obligation of assignment to the same person (namely, Battelle Memorial Institute). Therefore, Tonkovich et al. (US 2003/0072699, which published after applicants' priority date) does not qualify as prior art under section 103. See MPEP 2146 or MPEP 706.02(I)(2)II.

Therefore, the rejection of claims 22 and 32 (see page 4 of the Office Action mailed April 5, 2005) must be withdrawn.

#### The Effect of Pore Size was Not "Well-Known"

On page 3 of the final Office Action, it is alleged that "it is well-known that the catalyst activity and the process efficiency are variable(s) that can be modified by adjusting pore size and distribution for the porous substrate."

Applicants do not agree that it was "well-known." Catalyst activity is an intrinsic property of a catalyst center and would not have been thought to be affected by the geometry of an underlying support. In other words, catalyst activity, like melting point, is an intrinsic property, and one wouldn't expect an intrinsic property to change with shape. It is not clear what is meant by "process efficiency" in the context of the Hepp patent. Pursuant to MPEP 2144.03(C), Applicants request that the Examiner provide documentary evidence to support the quoted assertion, or withdraw the rejection.

### The Hepp and Saito References Are Not Properly Combinable

In the second full paragraph on page 3, the final Office Action states “The argument that Hepp catalyst and the Saito catalyst are catalysts used for different purposes is not persuasive since the claimed invention is a catalyst not a process.” It is respectfully submitted that this mischaracterizes applicants’ argument. Whether applicants are claiming a process or product is not relevant to the motivation for combining Hepp and Saito. The question for motivation is: why would a skilled person take Hepp, a reference concerned with dehydrogenating alkanes, and combine it with Saito, a reference that has nothing to do with dehydrogenating alkanes? The Hepp and Saito references are totally unrelated – the skilled worker would never combine these two references. In other words, there is no motivation for combining these references. Therefore, the rejection based on this combination should be withdrawn.

### The Claimed Invention is Further Patentable in View of the Showings of Unexpected Results

In the third paragraph on page 3 of the final Office Action, it is stated that “in example 2 and 3, the catalyst contains 1.5% wt of K and 0.5% wt Ru. None of the catalysts in the present claims has these features.”

This is not a proper basis for rejecting the showing of unexpected results. It is true that none of the claims recites the specific composition of the examples. However, all of the examples are within the claims. Of course, there is no requirement that the claims be limited to only the specific formulations described in the examples – this would result in absurdly narrow

claims. The claims are supported by the examples — all of the examples are within the scope of the claims. For example, the catalyst containing 1.5% wt of K and 0.5% wt Ru is within the scope of claim 3 which recites “comprising 0.1 to 10wt% Ru and 0.1 to 10wt% K.” Applicants have discovered a catalyst composition, and have shown the composition provides superior results in the water gas shift reaction. This is an unexpected result in view of the prior art and this unexpected and superior result further establishes patentability of the claimed invention over the prior art.

### CONCLUSION

If the Examiner has any questions or would like to speak to Applicants' representative, the Examiner is encouraged to call Applicants' attorney at the number provided below.

Respectfully submitted,

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